Star Dust

Newsletter of National Capital Astronomers, Inc.

capitalastronomers.org

November 2025 ***Volume 84, Issue 3***

Celebrating 88 Years of Astronomy

Next Meeting

When: Sat. Nov. 8th, 2025

Time: 7:30 pm

Speakers: Bryan Vandrovec

Where: In-Person (UMD Obs.) and Online (Zoom)

See instructions for joining the meeting via Zoom on Page 9.

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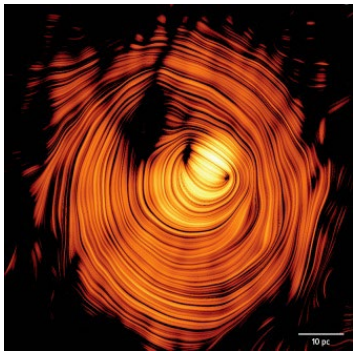

Image Credit – NSF/AUI/NRAO/B. Saxton/Y.Y. Kovalev et al.

One of the brightest sources of gamma rays and cosmic neutrinos, the blazar PKS 1424+240, has been found to be oriented so that its jet is almost directly aimed at us, only 0.6 degrees off. More information on this picturesque blazar is available at public.nrao.edu/news/nsf-vlba-peers-into-the-eye-of-sauron-to-solve-cosmic-neutrino-mystery/.

Annual Membership Dues are Past Due

Instructions to join NCA or renew your membership, are available at capitalastronomers.org/ (top right corner). Please fill out the electronic form! Dues payment is electronic (preferred!) or by check (see information for doing so on Page 8). Please support NCA by applying for or renewing your membership at this time to continue receiving Star Dust. ***Thank you!***

Getting Started with Astrophotography: Capturing the Cosmos

Bryan Vandrovec – National Capital Astronomers

Iris Nebula - Image Credit – Bryan Vandrovec

Join us for a captivating exploration of astrophotography—the art and science of preserving the night sky in stunning detail. This presentation will guide you through the techniques and tools that transform faint starlight into vivid portraits of galaxies, nebulae, and planets, revealing a universe far richer than what the eye alone can see.

We'll delve into the essentials of deep-sky imaging, from choosing the right camera and telescope to understanding the importance of a tracking mount that compensates for Earth's rotation during long exposures. Learn how telescope aperture and focal length influence your results, and why image stacking—combining many short exposures—is key to producing crisp, noise-free images. We'll also explore how filters help isolate specific wavelengths of light, allowing you to cut through light pollution and capture the subtle glow of emission nebulae. You'll discover how narrowband imaging can be used to create dramatic false-color compositions that are both scientifically meaningful and visually striking.

Recent Astronomy Highlights

Astronomers Detect A Companion to Betelguese

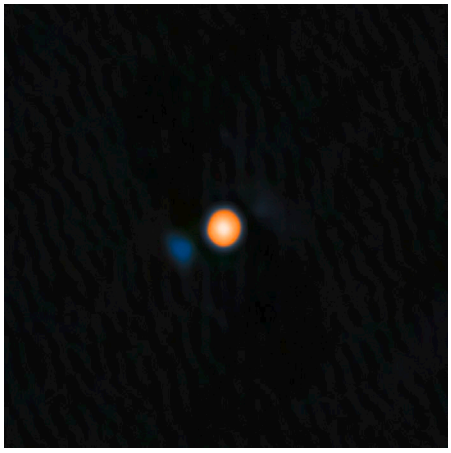

Image Credit - NASA/JPL/NOIRLab with visualisation from NOIRLab

Betelgeuse has been in the news in recent years because of a significant dimming of its light, finally explained as having been caused by a massive ejection of plasma that subsequently formed a dust cloud, obscuring our view of the star. But there is a new surprise concerning the star. Astronomers have found that Betelgeuse has a companion. There has been speculation in the past that such a companion exists and that it could explain a six-year cycle of dimming and brightening, the explanation being that the companion would clear out dust during its orbit around Betelgeuse. The difficulty with confirming such a companion is that the incredible brighteness of the red giant star makes it difficult to see anything else nearby. A team of astronomers got past this difficulty by getting deep images of the region when it was theorized that the companion would be farthest from Betelgeuse. The team used time on the Hubble Space Telescope and the Chandra X-ray Observatory. The companion appears to be a star of about the same mass as our Sun, the trace of it being the faint blue area in the image shown above. Such a low-mass companion does challenge theories about binary star system formation. More information on the discovery is available at phys.org/news/2025-10-betelgeuse-secret-companion-star-revealed.html.

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Abstract – continued from page 1

The session will also cover the importance of calibration frames—such as darks, flats, and biases—which correct for sensor imperfections and optical artifacts. We'll introduce you to the modern imaging workflow, where software and automation streamline tasks like focusing, polar alignment, target acquisition, and guiding, making astrophotography more accessible than ever. For those interested in planetary imaging, we'll contrast deep-sky techniques with high-speed capture methods that freeze atmospheric turbulence, using specialized optics and alignment tools to bring out fine planetary detail.

Whether you're aiming to photograph distant galaxies or the intricate bands of Jupiter, this presentation will equip you with the knowledge and inspiration to elevate your astrophotography journey. Come discover how to turn your telescope into a cosmic camera—and bring the universe a little closer to home.

Biography: A native of Northern Virginia, Bryan Vandrovec blends a distinguished career in advanced technology with a lifelong passion for astronomy and astrophotography. He holds a Bachelor of Science in Computer Science from Cornell University, with a minor in Cognitive Studies, and a Master of Science in Systems Engineering from Johns Hopkins University.

Bryan's early career included an internship at NASA's Ames Research Center, where he contributed to telepresence technology for the Mars Pathfinder Mission. Since then, he has built a diverse portfolio in systems engineering and autonomous systems, co-founding a computer graphics startup and supporting major RDT&E initiatives and Programs of Record at the Naval Air Systems Command (NAVAIR), including work on the P-8A Poseidon and MQ-4C Triton programs. He also served as the autonomy architecture lead for the Dynetics Human Landing System (HLS) proposal under NASA's Artemis program.

Currently, Bryan is a Chief Technologist for AI and Autonomous Systems at Booz Allen. He is an inventor on three U.S. patents, with additional work pending in the field of Cognitive AI. Outside of his professional endeavors, Bryan is an avid amateur astronomer and astrophotographer, capturing the night sky with both technical precision and artistic flair.

Exploring the Sky

2025 Exploring the Sky Sessions

5	Apr	8:00 PM
3	May	9:00 PM
7	Jun	9:00 PM
5	Jul	9:00 PM
2	Aug	8:30 PM
20	Sep	8:00 PM
18	Oct	7:30 PM
15	Nov	7:00 PM

Exploring the Sky is a joint program between the National Capital Astronomers and the National Park Service Rock Creek Park Nature Center and has been run since 1948 at this location, the field at the corner of Glover and Military Roads in the District. There is an adjacent parking lot. It is free and all are welcome who have an interest in observing the heavens. It's not an ideal dark-sky location but we can see Solar System objects, open and globular clusters and maybe a fuzzy galaxy or two.

More information can be found at NCA's web site, www.capitalastronomers.org or the Rock Creek Park web site, www.nps.gov/rocr/planyourvisit/expsky.htm. You can also call the Nature Center at (202) 895-6070. For general information on local astronomical events visit www.astronomyindc.org.

The submission deadline for December's Star Dust is November 29th.

Clear Skies!

Schedule of Upcoming NCA Meetings and Speakers

Bryan Vandrovec and Carl Biagetti

Nov. 8, 2025 – Bryan Vandrovec (NCA) *Getting Started with Astrophotography: Capturing the Cosmos*

Dec. 13, 2025-- Kristin Showalter Sotzen (Johns Hopkins APL) *NASA's Dragonfly Mission to Saturn's Moon Titan*

Jan. 10, 2026 -- Christine Hirst Bernhardt (National Earth Science Teachers Association)

Feb. 14, 2026 -- Frank Summers (Space Telescope Science Institute)

President's Corner

Guy Brandenburg

You don't see a neighborhood astronomy group being born every day, especially not in the inner city, and especially not with the key role played by an immigrant teenager about to be expelled from the USA!

The group in question is the Mount Pleasant Sidewalk Astronomers (MPSA), and its impromptu events are eagerly looked forward to by locals who sign up for notifications. If the weather is clear, and members are healthy and available, they set up at the light-polluted corner of Mount Pleasant and Irving Streets, NW, in Washington, DC.

Left - Gael Gomez points toward Vega, a star 27 light years away. Image Credit – Jason Garza. Taken from his upcoming documentary about Gael Gomez and National Capital Astronomer members
Right – MPSA Emblem. Credit - Jeffrey Everette, aka Rockets are Red or @rocketsarered with the permission of Jason Hamacher, owner of Lost Origins Gallery

The 19-year-old is Gael Gomez, one of the most amazing young folks I've had the pleasure of teaching and mentoring over my long teaching career.

Back home in Venezuela, Gael's dad had ignited Gael's passion for astronomy by finding and repairing a telescope he found in the trash. His mother is a research microbiologist whose project at the Smithsonian here in DC recently ended, along with the accompanying visa. Both parents are deeply religious and have had their doubts about their son staying up all night long observing or photographing astronomical events, thinking he was just wasting time playing video games, but they supported him anyway.

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Sky Watchers

November/December

Mercury transits from the evening sky to the morning sky in mid-November and will probably not be viewable until late November, reaching greatest western elongation on December 7th (see below). Venus will be low in the predawn sky, less viewable as November gives way to December. Mars will be very low in the evening sky. By November, Jupiter rises well before midnight and will be high in the predawn sky. Saturn will be high in the evening sky, setting after midnight.	
11/17 - 18	The Leonids meteor shower peaks the evening of the 17th into the morning of the 18th with approximately 15 meteors per hour. Viewing conditions should be ideal with only a thin crescent Moon that night.
12/4	Full Moon and Supermoon – 6:15 p.m.
12/7	Mercury reaches greatest western elongation and will be 20.7 degrees from the Sun.

Time is in EST (Eastern Standard Time)

President's Corner – continued from page 3

Gael sought me out at the NCA telescope making, maintenance, and modification workshop (TMMMW) at the Chevy Chase Community Center a few years ago and told me he wanted to build a telescope. And so he did! His first telescope, a classic 8" Dobsonian, used a mirror that someone else had made. But he later re-figured the sub-standard commercial mirror on a used 5" Newtonian, and he also revived some of the mounts that had been donated to the TMMMW over years. Ever since that time, he has been increasing his astronomical skills and sharing what he sees with everybody he meets. After graduation, he did a year-long internship with me and another high school student, providing public solar astronomy events around the city when the weather was clear.

Left - Gael Gomez (left) and his neighbor and fellow amateur astronomer and astrophotographer, Adam Green

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Recent Astronomy Highlights – continued from page 2

The Most Pristine Star So Far Discovered

Residing in the Large Magellanic Cloud, a red giant star identified as SDSS J0715-7334, has the lowest metallicity ever measured, even lower than that seen in galaxies billions of light years away, that therefore existed in the early Universe. Astronomers define metals as any element beyond hydrogen and helium. Except for trace amounts of most other elements, such as lithium, created in the maelstrom shortly after the Big Bang, most other elements have been created by fusion within stars or in supernovae, the violent deaths of stars. It is mostly via those supernovae that the heavier elements have been cast back out into the interstellar medium where they can become part of new stars forming from clouds of gas. Current theory indicates that first-generation stars were likely to be massive and therefore too short lived to have survived more than a few million years. Studies of the abundance of carbon and other elements within SDSS J0715-7334 indicate that if it is a second-generation star, its progenitor would have likely been a star with less than 30 times the mass of the Sun. The star's apparent motion also indicates that it might have formed within the halo of the Large Magellanic Cloud. Study of such a star may help in understanding the stellar evolution of the Universe. More information on SDSS J0715-7334 can be found at www.sciencealert.com/astronomers-find-the-most-pristine-star-yet-and-its-surprisingly-close.

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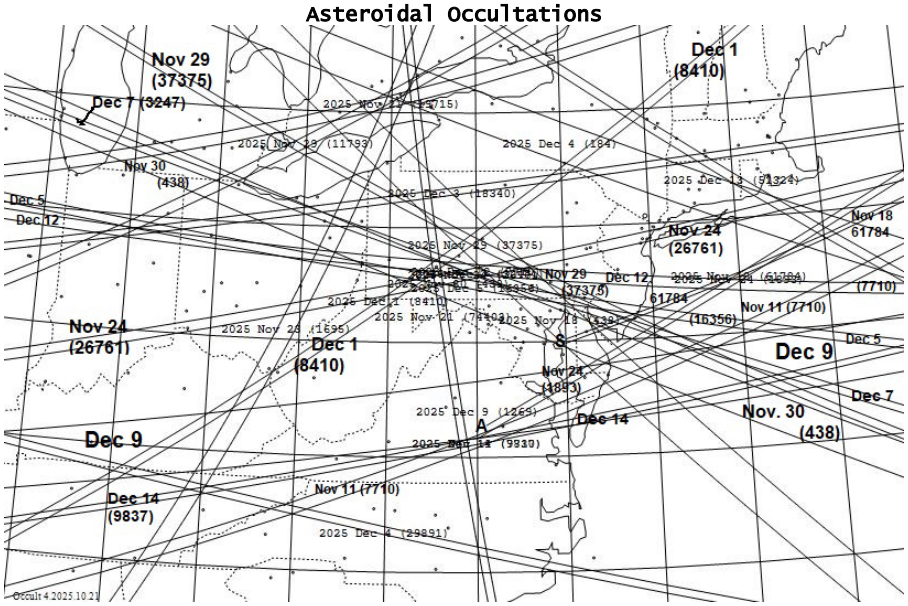
Occultation Notes

- D following the time denotes a disappearance, while R indicates that the event is a reappearance.
- The times are for Greenbelt, MD, and will be good to within +/-1 min. for other locations in the Washington-Baltimore metropolitan areas unless the cusp angle (CA) is less than 30 deg., in which case, it might be as much as 5 minutes different for other locations across the region.
- Some stars in Flamsteed's catalog are in the wrong constellation, according to the official IAU constellation boundaries that were established well after Flamsteed's catalog was published. In these cases, Flamsteed's constellation is in parentheses and the actual constellation is given in the notes following a /.
- Mag is the star's magnitude.
- % is the percent of the Moon's visible disk that is sunlit, followed by a + indicating that the Moon is waxing and - showing that it is waning. So 0 is new moon, 50+ is first quarter, 100+ or - is full moon, and 50- is last quarter. The Moon is crescent if % is less than 50 and is gibbous if it is more than 50. E indicates a lunar eclipse is in progress, and the value is the percent of the Moon's disk that is NOT in the umbra. So 0E means during the total phase.
- Cusp Angle is described more fully at the main IOTA Web site.
- Sp. is the star's spectral type (color), O,B,blue; A,F,white; G,yellow; K,orange; M,N,S,C red.
- Also in the notes, information about double stars is often given. "Close double" with no other information usually means nearly equal components with a separation less than 0.2". "mg2" or "m2" means the magnitude of the secondary component, followed by its separation in arc seconds ("), and sometimes its PA from the primary. If there is a 3rd component (for a triple star), it might be indicated with "mg3" or "m3". Double is sometime abbreviated "dbl". Often, rather than the separation, I give “dTime” or “dT”, the time difference of the secondary star occultation relative to the primary star’s occultation.
- Sometimes the Axis angle (AA) is given. It is the angle measured around the Moon's disk, from the Moon's axis of rotation. It can be used with a lunar map to tell where a star will reappear relative to lunar features.

Mid-Atlantic Occultations

David Dunham

Asteroidal Occultations



2025 Date	EST	Star Name	Mag.	RUWE <1.4	Type	Asteroid #	Name	dmag	dur. s	DC-Dst Alt	km
Nov 10	19:18	4UC51503452	11.3	4.35		7710	Ishibashi	5.8	1.4	35	136
Nov 18	4:25	TYC18920062	9.4	1.15		438	Zeuxo	5.0	9.0	69	94
Nov 18	17:49	4U381159331	12.2	0.90	Sp	61784	2000 QL178	8.7	0.2	33	15
Nov 20	19:46	TYC57770952	9.2	1.00		19715	Basodino	9.6	0.7	33	545
Nov 20	21:24	TYC17182263	10.3	1.10		74403	1998 YR5	8.9	1.6	59	139
Nov 23	0:31	SAO 114492	7.8	0.85		1695	Walbeck	8.9	2.1	43	436
Nov 23	19:32	TYC18851203	10.0	0.80		1893	Jakoba	6.1	1.2	11	102
Nov 24	1:22	TYC13060233	10.1	1.00		26761	Stromboli	7.7	1.7	72	160
Nov 28	20:18	TYC63650822	9.9	1.85		11793	Chujkovia	9.1	0.6	18	568
Nov 29	4:33	SAO 76337	9.4	5.45		37375	2001 VY39	8.8	0.8	25	145
Nov 30	2:22	TYC18910300	9.7	1.10		438	Zeuxo	4.6	6.1	80	65
Nov 30	19:17	TYC58170003	9.9	1.20		8410	Hiroakiohno	8.3	0.7	36	229
Dec 2	22:36	TYC23431210	9.8	1.05		18340	1989 OM	8.4	1.1	84	319
Dec 4	1:19	TYC13102131	10.0	1.05		29891	1999 GQ37	7.6	1.1	73	397
Dec 4	4:39	TYC49440431	10.5	1.05		184	Dejopeja	3.7	2.3	32	407
Dec 5	3:05	4UC46846073	9.9	1.00		16356	Univbalttech	8.5	0.7	29	106
Dec 7	2:50	TYC18721754	8.9	1.05		3247	Di Martino	7.6	1.3	66	113
Dec 8	23:28	TYC13242688	10.3	1.20		1269	Rollandia	4.1	7.5	64	107
Dec 11	20:15	TYC06260166	10.5	0.80		7710	Ishibashi	7.3	4.6	63	145
Dec 13	2:44	SAO 77581	8.4	0.95		51324	2000 LV8	8.3	1.1	58	506
Dec 13	21:32	SAO 96208	8.5	1.00		9837	Jerryhorow	8.6	1.1	36	160

With this new format, the new columns need some explanation:
RUWE is the ESA-Gaia Re-normalized Unit Weight Error; if greater than 1.3, the actual path may be even 50km from the prediction.
Type: blank, Main Belt Ast.; Sp = special Main Belt - see occultations.org/publications/rasc/2024/nam24MBspecialoccs.pdf.
The last two columns are for DC: Alt. of the star and path distance in km from DC. Map dates are UT, so for UT, add 1 to table date if EDT is 19 or more. See the neUS Web page for some graing occultations.

Lunar Total Occultations

2025 Date	Day	EST	Ph	Star	Mag	%	alt	CA	Sp.	Notes
Nov 11	Tue	1:18	R	gamma Cnc	4.7	60-	34	23N	A1	ZC1308, close double??
Nov 12	Wed	2:02	R	8 Leonis	5.7	49-	30	47N	K1	ZC1418, close double??
Nov 13	Thu	7:20	D	rho Leo	3.8	37-	60	-1S	B1	Sun +5, AA 181
Nov 13	Thu	7:47	R	= ZC1547	3.8	37-	59	38S	B1	Sun +9, close double??
Nov 17	Mon	5:40	R	68 Vir	5.3	7-	12	50N	K5	Az.118,ZC1930, dbl??
Nov 29	Sat	18:21	D	XZ Piscium	5.8	68+	49	88S	M5	ZC3520
Nov 30	Sun	20:49	D	delta Psc	4.4	79+	58	73N	K5	ZC 105
Dec 2	Tue	21:12	D	mu Arietis	5.7	95+	68	65N	A0	ZC 399, close double
Dec 3	Wed	20:34	D	Electra	3.7	99+	56	56S	B6	ZC537,TmD 17",close dbl
Dec 3	Wed	20:40	D	Taygeta	4.3	99+	57	52N	B6	ZC539,TmD 15",close dbl
Dec 3	Wed	20:54	D	Maia	3.9	99+	59	83N	B8	ZC 541, close double
Dec 3	Wed	21:03	R	Electra	3.7	99+	61	6S	B6	AA 193,ZC 537,close dbl
Dec 5	Fri	18:20	R	136 Tauri	4.6	98-	9	77N	A0	Az 62,AA 268,ZC 890
Dec 11	Thu	4:19	R	59 Leonis	5.0	54-	51	19N	A5	ZC1600

David Dunham; More is on the northeast US occultations pages at groups.io/g/OccultNEUS and iota.jhuapl.edu/exped.htm.

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President's Corner – continued from page 4

Adam Green, an amateur astronomer and astrophotographer who happened to live next door to Gael and his family, was invited by Gael to do public sidewalk astronomy events at the street corner nearest their homes, right in front of Ercilia's Restaurant: Mount Pleasant and Irving Streets, NW. These initial Mount Pleasant Sidewalk Astronomy events caught the attention of several other neighbors. They included:

*Sojin Kim of the Smithsonian's annual Folk Life Festival, who decided to recruit Gael (and me) to participate in this past summer's FLF event, which focused on youth and passing the baton of tradition and expertise;

*Documentary filmmaker Jason Garza, who decided to begin filming a documentary on Gael, me, NCA, and the current political atmosphere in DC, specifically relating to immigration and militarization;

*Jason Hamacher, the owner of a local art gallery called Lost Origins, who was sufficiently impressed by the astro images and work by Gael, Adam, and NCA Vice-President Bryan Vandrovec to organize an enormous display of their astro-images in an open-air exhibition on both sides of an alley on the east side of Mount Pleasant Street. The Smithsonian's Folk Life Festival paid for part of the display.

Recently, Gael has begun taking professional photos at cosplay conventions, and was hired by a high-end rooftop restaurant along the Wharf in SW DC as their resident astronomer for their Full Moon events.

My slowly-deteriorating eyes have a hard time even seeing the very brightest stars at that Bortle 9 street corner, but Gael can see them quite clearly, and he uses a bare-bones webpage called AstroHopper to find and display to local folks all sorts of celestial objects that are completely invisible otherwise.

This is not a dark-sky site where you can see comets or the Milky Way!! The local light pollution comes from glaring tear-drop street lights, stoplights, and neon signs, but it's an extremely vibrant neighborhood with a lot of local pedestrians walking by of all ages, incomes, occupations, national origin, and skin colors. Of all the locations I've done sidewalk astronomy at over the years, this corner has the largest number of people who stop to take a look. Gael started an email notification list, and now local folks show up, often bringing their kids, patiently waiting, while we are still setting up our equipment, to see what they can see in the eyepiece and then to talk about what it all means. Sometimes we bring a SeeStar for a change of pace. The events are so much fun, at least in part because we built many of the telescopes ourselves. Audio recordings of these events that I've made feature lots of Oohs and Aahs and happy conversations about what it all means.

Unfortunately, by the time you read this, the key person in MPSA, Gael Gomez, will probably be somewhere in South America, forced to leave by the Trump administration's canceling of Temporary Protected Status for all Venezuelan, Aghan, and Haitian refugees.

Since Venezuela is in economic chaos and under American military threat, even getting there is difficult. There are no direct flights from the US to Caracas. Multiple flights to and inside Colombia, followed by long bus rides from the border, will be needed.

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President's Corner – continued from page 4

Far from being vicious Tren de Aragua gang members, Gael and his family are exactly the type of hard-working immigrants any sane nation would want to attract.

Will the MPSA survive the departure of Gael Gomez?

Will the US survive its unpopular dive into racist, anti-immigrant authoritarianism for the benefit of a handful of billionaires?

Will Gael and his family be able to survive in barely-functioning Venezuela? (One silver lining will be that the frequent electrical blackouts in Venezuela will allow him to be able to see the Magellanic Clouds from his childhood home….)

One thing is for sure: without a whole lot of push-back and protest by American citizens, way beyond just the occasional peaceful march, the Trump administration will keep on making things worse.

National Capital Astronomers

National Capital Astronomers (NCA), Serving science and society since 1937. NCA is a volunteer-run, membership-supported nonprofit dedicated to advancing astronomy, space science, and technology. Through research, lectures, publications, public interpretation, and education, NCA has long worked to connect people with the cosmos and with each other.

As the astronomy affiliate of the Washington Academy of Sciences, NCA stands as a living lineage: linking the wisdom of the past to the present, and carrying it forward as the repository of future knowledge.

Their telescope workshop in Chevy Chase keeps alive the art of hands-on astronomy. On Tuesday and Friday evenings, visitors learn to build, repair, and use telescopes — discovering the night sky even under the heavy glow of Washington, D.C.'s lights.

How do we do the things we do? We do them with the support of the NCA. They hold the knowledge, the tools, and the community that make our hobby possible.

Images courtesy of Jason Garza's upcoming documentary film focused on the NCA and its members.

Recent Astronomy Highlights – continued from page 4

Protoplanet Imaged In A Ring Gap
WISPIT 2b, a protoplanet approximately five times the size of Jupiter, has been imaged, still growing within its young planetary system in a gap between rings of gas and dust in the protoplanetary disk. Astronomers estimate that WISPIT 2b is about five million years old. While astronomers have long believed protoplanets form and grow in such gaps, perhaps even having created those gaps during their formation, they have not had any direct proof until now. Indeed the astronomers discovered an additional protoplanet candidate in another ring gap in the same system. Confirmation of the candidate actually being a protoplanet will require further study of the system. More information about the protoplanetary discovery, as well as the image, is available at science.nasa.gov/universe/exoplanets/discovery-alert-baby-planet-photographed-in-a-ring-around-a-star-for-the-first-time/.

Calendar of Events

The NCA Telescope Making, Maintenance, and Modification Workshop (TMMW) is held on Tuesdays & Fridays, from 6:00 to 9:00 PM, in the basement wood shop of the Chevy Chase Community Center. The CCCC is located at the intersection of McKinley Street and Connecticut Avenue, NW, a few blocks inside the DC boundary, on the northeast corner of the intersection. There is no cost to attend. At the TMMW, you can make a telescope from scratch, or else get assistance with collimating or modifying a scope you already own. We can also re-aluminize mirrors up to 12.5" in diameter for much less money than you would pay anywhere else. For additional information visit Guy Brandenburg's Website. To contact Guy, call 202-262-4374 or Email Guy.

Open House talks and observing at the University of Maryland Observatory in College Park are temporarily suspended. When they resume, they will be on the 5th and 20th of every month at 8:00 pm (Nov.-Apr.) or 9:00 pm (May-Oct.). Updates are posted at www.astro.umd.edu/openhouse.

The APS Senior Physicists Group: Wednesday, Nov. 19th at **1:00 p.m.**, Dr. Stephen Buchner, (Consultant), will give a talk entitled **Invisible Adversaries: How Radiation Shapes the Reliability of Integrated Circuits**. Participants can attend at the American Center for Physics at One Physics Ellipse, College Park, MD 20740 in Room 2148 or via Zoom. The Zoom link to register for the talk and attend is apsphysics.zoom.us/meeting/register/ykdZ4GERSU-c30xvd4ET_Q#/registration.

Next NCA Meeting - Dec. 13, 2025 -- Kristin Showalter Sotzen (Johns Hopkins APL) *NASA's Dragonfly Mission to Saturn's Moon Titan*

National Capital Astronomers

Online Membership Application and Renewal

To submit or renew a membership to the National Capital Astronomers, and pay dues, please visit capitalastronomers.org/. There is a Google form for membership on the upper right. Please fill out the Google form, including your email address, in order to continue receiving issues of Star Dust.

Membership Rates

$ 20 – 1 year Individual/Family
$ 45 – 3 years Individual/Family
$ 5 – 1 year Student
$200 -- Life Member

(Please note that membership dues will go up in coming years, so consider joining/renewing with the 3-year option in order to save money.)

If you prefer to pay membership dues by check,

- make check payable to ***National Capital Astronomers*** then
- mail to: **Jim Simpson, NCA Treasurer; 3845 Wayson Road, Davidsonville, MD 21035.**
- Don't forget to also fill out the membership Google form, even if renewing!

NCA can use your help! Please indicate on the membership Google form which astronomy activities are of interest to you. In addition, we are also looking for volunteers! We need new officers, help with our website and social media, and help with outreach and science fair events.

Thank you!

Celebrating 88 Years of Astronomy

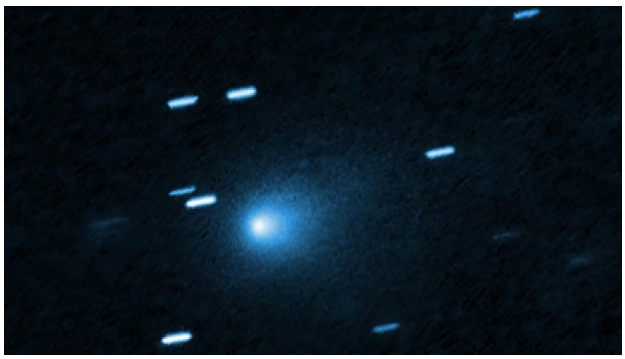

Image Credit - NASA, ESA, D. Jewitt (UCLA); Image Processing: J. DePasquale (STScI)

3I/Atlas, only the third detected interstellar visitor to our Solar System, continues to astonish astronomers. NASA's webpage on the visitor is at science.nasa.gov/solar-system/comets/3i-atlas/.

To join or renew online, visit capitalastronomers.org and look in the right column for the Membership Form and PayPal links.

Next NCA Meeting:

2025 Nov. 8th
7:30 pm
Bryan Vandrovec

- *Virtual attendees:* To join the meeting via Zoom, use the following link:

umd.zoom.us/j/95619565617?pwd=uqwxzZ39zgVfgOypmcp8cy6xFaCcRb.1

- *In-person attendees*: The UMD Astronomy Observatory is at 3255 Metzerott Road, College Park, MD 20740. Directions: www.astro.umd.edu/openhouse/1visiting/directions.html

Please note that NCA Zoom meetings are often recorded.

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